DOCUMENT RESUME

ED 099 128 PS 007 607

AUTHOR Lobitz, Gretchen K.; Johnson, Stephen M.
TITLE Normal Versus Deviant Children: A Multimethod Comparison.
SPONS AGENCY National Inst. of Mental Health (DHEW), Bethesda, Md.
PUB DATE [74]
NOTE 48p.

EDRS PRICE MF-$0.75 HC-$1.85 PLUS POSTAGE
DESCRIPTORS Behavior Patterns; Behavior Rating Scales; *Clinical Diagnosis; Family Problems; Feedback; Observation; *Parent Attitudes; *Parent Child Relationship; *Problem Children; Questionnaires; *Socially Deviant Behavior; Statistical Analysis

ABSTRACT

The present study investigated differences between referred and nonreferred children and their families on the basis of home and clinic observations and parent questionnaires. Subjects were 28 families with children between 4 and 8 years of age who had been referred to a clinic for acting-out behavior and 28 nonreferred controls matched on several variables. Home observation results indicated that referred children showed significantly more deviant behavior and less prosocial behavior while their parents emitted more negative and commanding behavior than control group parents. Systematic observation in the clinic revealed significant differences only in parent negativeness and number of commands. Finally, all five factors of the parent attitude questionnaire yielded large and significant differences between groups. There was considerable overlap between groups on all behavior variables but less overlap on the parent attitude measure. Results from a stepwise discriminant analysis classified 90 percent of referred children and 90 percent of nonreferred children correctly on the basis of the parent attitude variable alone. Taken together, tnese results suggest that child behavior is not always the critical variable in referral and stress the importance of multiple assessment of child-family problems when children are referred for treatment. (Author)

ED 099128

U.S. DEPARTMENT OF HEALTH EDUCATION & WELFARE NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

BEST COPY AVAILABLE

NORMAL VERSUS DEVIANT CHILDREN: A MULTIMETHOD COMPARISON[1]

Gretchen K. Lobitz and Stephen M. Johnson

University of Oregon

Research in child psychopathology has typically focused on children referred to a clinic for psychological treatment. Presumably these children are referred because they are more deviant than their "normal" peers. However, research studies comparing referred and nonreferred children in terms of deviant behavior have yielded varying results depending upon the measurement instruments employed and thus leave open to question the role of the child's actual deviant behavior in determining his referral for treatment.

Although parent verbal report measures have been found to discriminate between referred and nonreferred children in terms of frequency and intensity of certain deviant behaviors (Brandon, 1960; Conners, 1970; Miller, Hampe, Barrett, & Noble, 1971; Oleinick, Bahn, Eisenberg, & Lilienberg, 1966; Schechtman, 1970; Sines, Paulker, Sines, & Owen, 1969; Speer, 1971; Wolff, 1967), observations of actual child behavior in either home or clinic settings have not consistently yielded significant differences between groups. Kogan and Wimberger (1971) observed mother-child interaction during a structured situation in the laboratory and found no significant differences between the behavior of normal controls and clinic children. Bugental, Love, and Kaswan (1972) coded family interactions in an unstructured situation, i.e., while families were in the waiting room on their initial visit to the clinic. They found no significant differences between clinic and control children in

PS 007 607

BEST COPY AVAILABLE

terms of amount of talking, number of attempts to control others, and frequency of positive versus negative evaluation. Shaw (1971) used home observations to compare 18 boys referred to an outpatient treatment program with 12 nonreferred boys matched on several variables. Although the referred boys displayed more than twice as many deviant behaviors as did nonreferred boys (.793 versus .384 deviant behaviors per minute), these differences were again not significant and there was considerable overlap in the two distributions. Since the inception of the present study, an extension of Shaw's data has revealed significantly more deviant behaviors in 25 boys referred to the outpatient treatment program than in 25 matched normals (Hendriks, 1972). Final analyses on the data are still in progress (Patterson, in preparation).

In sum, research findings to date suggest that the label "deviant," operationally defined in the present study as parent referral to a child guidance clinic, seems to depend as much on parental perceptions and attitudes as on child behavior per se. The present study examined both possibilities: (a) that referred children are actually more deviant than nonreferred children, or (b) that parents simply perceive them as more deviant. Since previous studies investigating this issue have used just one measurement procedure per study and have yielded varying results depending on which procedure was employed, the present investigator used three types of assessment to measure child deviant behavior within the same subject population: the parent questionnaire, the structured interaction situation in the clinic, and the home observation. In addition to clarifying the role of the child's actual deviant behavior

BEST COPY AVAILABLE

in determining referral for treatment, this multimethod procedure permitted investigation of the correlations between the various assessment methods for deviant behavior.

Although researchers have emphasized an excess of certain deviant behaviors as a major factor in child referral (e.g., Kanner, 1960; Patterson, Cobb, & Ray, 1972), a deficit of behaviors positively valued by adults could also be responsible. Since previous investigators had noted significant differences between referred and nonreferred children in terms of specific, socially appropriate behaviors (Eberhardy, 1967; Rutter & Graham, 1968), the present study examined positively valued child behavior as a potential discriminator between groups.

Finally, if, as the previous literature suggests, parents' perceptions and attitudes discriminate referred from nonreferred children, it is likely that the parents' responses to the child could also discriminate the two samples to the extent that parents' perceptions and attitudes are reflected in their behavior. Given the finding that parents who referred their child for treatment described him as more deviant than parents who perceived their child as normal, referring parents were predicted to be (a) more negative (i.e., disapproving, inconsiderate, unfriendly), (b) less positive (i.e., approving, considerate, friendly), (c) more controlling, and (d) more responsive to child deviant behavior.

The first three hypotheses were based on findings from comparisons of referred and nonreferred children using parent report and laboratory interactions. These indicated that parents of clinic-referred children were more disapproving (Beukel & Mehrabian, 1969; Bugental, Love, Kaswan, & April, 1971), more rejecting (Kogan & Wimberger, 1971; Oleinick et al., 1966; Schulman, Shoemaker, & Moelis, 1962), and more controlling

BEST COPY AVAILABLE

(Bugental et al., 1972; Kogan & Wimberger, 1971). As yet no studies have compared referred and nonreferred children in terms of parent behaviors observed in the home. However, other studies conducted as part of this same project suggested a high, positive relationship between parent negativeness and commands and child deviant behavior when observed in the home (Johnson & Lobitz, 1974; Johnson, Wahl, Martin, & Johansson, 1973; Lobitz, W. & Johnson, 1974).

The fourth hypothesis regarding parent behavior, that is, that parents of referred children would be more responsive to deviant behavior, was based on the theory that deviant behavior in a particular situation is maintained by attention. Previous studies have indicated that parents of behavior problem children provided at least as much attention for deviant behavior as for nondeviant behavior (Herbert & Baer, 1972; Wahler, 1969). Furthermore, although studies have not compared referring to nonreferring parents in terms of attention to deviant behavior, comparisons done in the classroom found that the more disruptive children received a greater number of both positive (Anderson, 1964) and negative (Ebner, 1967) consequences for their behavior. Walker and Buckley (1973) reported that in their observation of two disruptive and two nondisruptive children, the deviant children received 77% of the total teacher attention given.

In sum, the present study examined the following predictions concerning child behavior and parent response observed in structured situations in the clinic and in unstructured sessions in the home:

1. Children referred to a clinic for treatment would emit a significantly greater proportion of deviant behavior and a significantly

BEST COPY AVAILABLE

smaller proportion of positively-valued behavior than children not referred.

2. Parents of referred children would provide a significantly greater proportion of negative consequences and a significantly smaller proportion of positive consequences than parents of nonreferred children.

3. Parents of referred children would provide significantly more attention for deviant behavior than parents of nonreferred children.

4. Parents of referred children would give significantly more commands than parents of nonreferred children.

In addition to testing these hypotheses, the present study examined the correlations within these dependent variables across settings. A secondary issue, specific to the present study, was the possibility that differences in these correlations might be found between referred and nonreferred groups. Specific hypotheses regarding these correlations were not predicted.

Finally, in keeping with previous research, it was hypothesized that

5. Parents of referred children would rate their child as more deviant/less normal on an attitude inventory than parents of nonreferred children.

Although statistically significant differences between group means on these variables would permit generalizations about the two groups, the accuracy of assignment to one group or the other on the basis of any one dependent variable would depend on the amount of overlap between groups. To the extent that the groups overlap on any one variable, as has been the case in previous research (Shaw, 1971), a stepwise

BEST COPY AVAILABLE

discriminant analysis involving several variables would need to be done in order to make accurate assignment to one group or the other for any given child. Consequently, the overlap between groups was examined for those variables which discriminated the two groups, and a stepwise discriminant analysis was employed to determine which of five variables selected a priori had the greatest weighting as predictors to assignment to groups. The variables, i.e., those which according to previous studies would most likely discriminate the two groups, included child deviant behavior in the home and clinic, parent negativeness in the home and clinic, and a parent attitude summary score.

BEST COPY AVAILABLE

Methods

Subjects

The original group from which the samples were drawn included 49 referring and 79 nonreferring families, all of whom had agreed to observation procedures in the clinic and their homes. The referred sample selected for the present study was composed of 28 families who had contacted the University of Oregon Psychology Clinic for treatment of a child between the age of four and eight years during the period of September 1970 to March 1973. Only parental complaints labeled "active behavior problems" were accepted as referrals; such complaints included aggressiveness, destructiveness, disobedience, hyperactivity, temper tantrums, or annoying high rate behavior such as yelling, crying, smart talk, or demanding attention. Although some parents had been referred through other agencies, all parents believed their child's behavior in the home warranted treatment.

The nonreferring control families were screened to exclude any families in which the target child had been treated for behavior problems and/or in which any family member was currently under psychiatric care. Families with target children between four and six years had been recruited from the community by radio, television, and newspaper advertising. Families with target children between six and eight years, i.e., school age, had been recruited by randomly selecting names from a list of all first and second graders in the local school

BEST COPY AVAILABLE

district. Fifty percent of those contacted first by letter and then by phone had agreed to participate. After completing the assessment procedures these families were each paid $30.00.

The 28 nonreferring families were selected from the larger subject pool to match the clinic sample for age and sex of the target child, parent socioeconomic status, father absence or presence, number of siblings, and, in twenty cases, ordinal position of target child in the family. It was possible to achieve an almost complete match on these variables and there were no statistically significant differences between the samples. The median income level for these families was in the $6,000 to $9,000 range; the mean occupational level as measured by the Hollingshead index where the lowest level is 7 and the highest level is 1 was 4. The families had a median of 2 children (range 1 to 5) and the ordinal position of the child was variable. Twenty-two of the child pairs were male; six were female. Six of the families in each group were without fathers.

Procedures

The initial meeting with parents and child occurred at the University of Oregon Psychology Clinic. At this meeting the parents filled out a 47-item rating scale describing the target child. The items, taken from a rating scale developed by Becker (1960), sampled each of five child behavior problem factors derived by Patterson and Fagot (1967): (a) relaxed disposition, (b) withdrawn-hostile, (c) lack of aggression, (d) intellectual efficiency, and (e) conduct problems.

BEST COPY AVAILABLE

At the same meeting parents also participated in six structured situations with their child. Specifically these situations included (a) the parents or parent playing cards after they had asked the child to play quietly by himself with one toy of his choice; (b) the parents or parent leaving the child alone in the room to play with any of the toys on the table; (c) the mother alone playing with the child; (d) the mother alone giving the child a series of 22 commands; (e) the father alone playing with the child; and (f) the father alone giving the child a series of 22 commands. Each situation lasted five minutes and was coded by an observer via a one-way mirror. Parents knew they were being observed, the child did not. Following the standard situations, the home observation procedures were explained and a contract was signed. Remuneration or treatment was contingent on their completing the home observations.

Each family was observed in their home for the forty-five minutes preceding dinner for five consecutive week days. In order to control for situational factors across families and sessions, families were required to comply with the following rules during the observations: (a) all family members present; (b) no one except family members present; (c) all family members restricted to a specified two-room area; (d) no television; (e) no interactions with the observer. Parents were instructed to try to behave as they would if no observers were present and to give as natural a picture of the family as possible. Although these restrictions are somewhat severe they are typical of those employed in most studies involving home observations (e.g., Eyberg & Johnson, 1974; Patterson et al., 1972).

BEST COPY AVAILABLE

Observational System

Observers used a modified version of a coding system develcped by Patterson, Ray, Shaw, and Cobb (1969) which utilized 35 distinct behavior categories. Each was operationally defined and sufficiently inclusive to provide a classification system for most of the social behaviors occurring in families. The focus of the observation was the target child and his interactions with one or more family members. Interactions were coded continuously in pairs of behaviors consisting of the child's behaviors and the responses of those with whom he was interacting. If no response occurred, the code of "no response" was coded to complete the sequence pair. The coding system provided for the event of two behaviors occurring at once or two persons responding to the same initial behavior.

In order to facilitate observer agreement checks, these behavioral sequences were coded in 30-second time blocks and observers were equipped with a 30-second stopwatch and signaling apparatus. Behaviors within these blocks were coded as they occurred. No set number of responses was required per 30-second interval; typically between three and five interactions were recorded every 30 seconds. However, when child behaviors and others' responses continued without change, these interactions were recorded only every 10 seconds.

Behavioral Measures

Child behavior. Behavior codes were categorized as either deviant or nondeviant

BEST COPY AVAILABLE

child behavior on the basis of questionnaire data collected from all 162 parents in the total normal sample. Mean parental ratings designated 15 of the 35 behaviors as "deviant" for children between 4 and 8 years of age; the sum of these behaviors comprised the child's deviant behavior score for home observations and standard situations. Specifically, the deviant behavior score included the following responses: demand attention, violation of standing command, destructiveness, high rate, humiliate, noncompliance, physical negative, smart talk, tease, tantrum, whine, yell, threatening command, ignore, and negativism. The face validity of this category was enhanced by evidence that the behaviors which were rated as deviant by parents produced a relatively high proportion of negative parental consequences (Adkins & Johnson, 1972).

Two additional behavior scores were used as dependent variables, a high intensity deviant behavior score and a positive valence behavior score. These scores were determined by combining the data from the parental questionnaires and the home observations completed on those nonreferring families not included in the present study. The high intensity deviant behavior score was defined as those behaviors which fell into the highest quartile on both parental ratings of deviant behavior and proportion of parent negative consequences received. Specifically, the high intensity score was the sum of destructiveness, noncompliance to standing commands, physical negative, smart talk, tantrum, and threatening command. Since an earlier study had not found a significant difference between groups in overall deviant behavior (Shaw, 1972), the reason for this particular measure was to compare the groups in terms of low base rate events with high nuisance value

BEST COPY AVAILABLE

for parents. The positive valence behavior score was defined as those behaviors which fell into the lowest quartile on both parent ratings and negative consequences. Specifically, the positive valence behavior score was defined as the sum of approval, attention, independent activity, laugh, nonverbal interaction, and talk.

Parent behavior. These same 35 behavioral codes were also divided a priori into three categories of parent consequences: positive, negative, and neutral. A parental consequences was operationally defined as any parent behavior which immediately followed the target child's behavior. Positve consequences were those responses which might be expected to function as positive reinforcers for children between 4 and 8 years. Negative consequences were those responses assumed to convey an unfriendly or disapproving attitude to the child and to discourage the behavior. However, both categories lacked empirical proof as to their function and were based on assumptions about the parents' intended communication to the child.

The parent command score was the sum of four separate command categories: a positively stated command, a terminating command, a command promising an aversive consequence if not obeyed, and a command to which compliance could not be immediately determined. Parent responsivity to deviant behavior was the sum of all parent behaviors immediately following a deviant behavior by the target child excluding the parent consequences ignore, no response, and leave. All of the 35 behavior codes and their designations are presented in Table 1.

Insert Table 1 About Here

BEST COPY AVAILABLE

Observers

Observers were young college women paid as research assistants. They were trained extensively in the use of the code before being sent into families' homes and they continued to participate in weekly training sessions throughout the study. Particular effort was made to keep observers uninformed as to the referred or nonreferred status of a family. Following each home observation, observers were asked to fill out a questionnaire regarding the status of the family and any biasing information they might have received. Of the total 135 observations of clinic families, observers were aware of the families' clinical status in 35% of their home visits, usually because the parents mentioned treatment at the Psychology Clinic to the observer. If not informed, observers were asked to guess whether their particular family was referred or nonreferred. Of those clinic families whose status remained unknown to the observer, 54% were judged to be referred, 46% nonreferred. Of the total observations of nonreferred families, observers were informed on only 3% of their visits; however, observers guessed nonreferred in 80% of the cases.

Observer bias could not be controlled for in the standard situations in the clinic due to the presence or absence of a particular family's therapist in the observation room. However, recent studies have suggested that observer bias problems may be of small magnitude with reliable multivariate coding systems where observers cannot communicate expectations to subjects (Kent, 1972; Skindrud, 1972).

BEST COPY AVAILABLE

Observer Agreement

In order to gather data for interobserver agreement a second observer accompained the regular observer during her visit to the home on one randomly determined day. Observer agreement was obtained for 38 of the 52 families. Similar procedures were used for observations in the clinic; however, only 8 of the 52 standard situations were calibrated since primarily one observer coded standard situations. For each calibration, an overall observer agreement figure was computed. To count as an agreement, both observers had to agree on the same behavior for the same person in the same interaction block. The observer-agreement percent equalled the number of agreements divided by the number of agreements plus disagreements. Using this very stringent procedure, the mean observer agreement was 76% for home observations and 86% for clinic observations. Considering that the rigor of the system was much greater than that used in many observational studies and that the interactional data were highly complex, this figure was satisfactory and in fact was higher than previous research using the same coding system (Johnson et al., 1972).

Since the dependent variables consisted of summary scores, not moment-to-moment behaviors, correlations between the two observers' scores on each dependent variable were computed across families. The total number of deviant behaviors which the regular observer saw on the calibrating day correlated .92 with the total number that the calibrating observer recorded. The two observers' scores correlated .94 for positive valence score, .93 for parent negative consequences, .94 for parent

BEST COPY AVAILABLE

positive consequences, and .96 for parent commands. The agreement figure for high intensity deviant behavior and for overall responsivity to deviant behavior by parents could not be validly estimated because of the low number of occurrences of deviant behavior on any one day.

BEST COPY AVAILABLE

Results

Observational Data

Proportion scores (i.e., each subject's raw number of specific behaviors divided by his total behavior score) were used to control for individual differences in activity level and assessment condition. For purposes of data analysis, these proportion scores were transformed to arc-sin scores. However, the absolute number of child behaviors, child social behaviors, parent behaviors, and parent social behaviors did not differ significantly between groups in both home and clinic observations.

Home observations. The findings for the seven behavior variables as observed in the home are summarized in Table 2. As predicted, referred

---

Insert Table 2 About Here

---

children emitted a significantly greater proportion of deviant behavior (t = 2.53, df = 52, p < .02) and high intensity deviant behavior (t = 3.47, df = 52, p < .001) as well as a significantly lesser proportion of positively valenced behavior (t = 2.84, df = 52, p < .01). Parents of referred children responded with a significantly greater proportion of negative behavior (t = 3.34, df = 52, p < .005) and commands (t = 2.03, df = 52, p < .05) than parents of nonreferred children. The differences between groups for parent positive behaviors (t = .68, df = 52, ns) and responsivity to deviant behavior (t = .75, df = 52, ns) were not significant.

BEST COPY AVAILABLE

Since referred children emitted a significantly higher proportion of deviant behavior than nonreferred children, parent negativeness to child deviant behavior and child nondeviant behavior were analyzed separately. Parents of referred children were significantly more negative to both deviant behavior ($t = 2.89$, $df = 52$, $p < .01$) and nondeviant behavior ($t = 3.12$, $df = 52$, $p < .005$) than were parents of nonreferred children.

To determine whether the significant difference between the referred and nonreferred groups for child deviant behavior could be accounted for by high intensity deviant behavior alone, the proportion of deviant behavior minus high intensity deviant behavior was analyzed. Referred children exhibited a greater, but nonsignificant, proportion of these less annoying behaviors as well ($t = 1.90$, $df = 52$, $p < .10$).

Clinic observations. The findings for the seven behavior variables as observed in the clinic are summarized in Table 3. During the standard

---

Insert Table 3 About Here

---

situations in the clinic, relative to parents of nonreferred children, parents of referred children responded with a significantly greater proportion of negative consequences ($t = 2.38$, $df = 50$, $p < .05$) and commands ($t = 2.76$, $df = 50$, $p < .01$). The differences between parent proportion scores on positive consequences ($t = .42$, $df = 50$, ns) and responsivity to deviant behavior ($t = .81$, $df = 50$, ns) were again not significant. Nor were any significant differences found between the two groups on child deviant behaviors ($t = .91$, $df = 50$, ns), high intensity deviant behaviors ($t = .32$, $df = 50$, ns), or positive valence behaviors ($t = 1.60$, $df = 50$, ns).

BEST COPY AVAILABLE

Parent Questionnaire Data

The analyses of the Bipolar Adjective Checklist (Becker, 1960) for the five facotrs derived by Patterson and Fagot (1967) are summarized in Table 4. As predicted, analyses of the parent responses indicated that the

---
Insert Table 4 About Here
---

referred children were perceived as significantly less relaxed ($t = 6.52$, $df = 46$, $p < .001$), more withdrawn-hostile ($t = 3.02$, $df = 46$, $p < .01$), more aggressive ($t = 9.25$, $df = 46$, $p < .001$), less intellectually efficient ($t = 3.11$, $df = 46$, $p < .01$), and more prone to conduct problems ($t = 7.42$, $df = 46$, $p < .001$) than nonreferred children.

Stepwise Discriminant Analysis

As predicted, there was considerable overlap between groups, even on those variables which differed significantly between referring and nonreferring families. The overlap for child deviant behavior observed in the home which significantly discriminated the two groups is presented in Figure 1.

Insert Figure 1 About Here

The degree of overlap illustrated here is generally representative of that observed for the other behavioral variables which significantly discriminated the groups. Figure 2 illustrates the overlap on the summary score for the

---
Insert Figure 2 About Here
---

three Becker factors selected *a priori* as most related to the parents' presenting complaints. As can be seen from Table 5, the overlap on the parent

---
Insert Table 5 About Here

BEST COPY AVAILABLE

attitude summary score was considerably less than that obtained with the behavior variables.

Because of this predicted overlap, a stepwise discriminant analysis was performed on five variables selected a priori[2]: child deviant behavior in the home, child deviant behavior in the clinic, parent negativeness in the home, parent negativeness in the clinic, and the Becker summary score. This analysis is summarized in Table 6. Assigning these particular

---

Insert Table 6 About Here

---

weights to the five variables resulted in the optimal separation of the two groups in a multidimensional space. Results indicated that parent attitude carried the most weight in differentiation. Parent negativeness received the next most; however, the order of the remaining four variables is less meaningful given their high intercorrelations. Of the 42 children included in the analysis, 90% were correctly classified on the basis of the parent attitude variable alone. Inclusion of the other four variables increased the accuracy to 95% for the referred group but did not increase accuracy for the nonreferred group.

Correlation of Variables Across Situations

The correlations within dependent variables observed in both the home and clinic are summarized in Table 7. Correlations within groups were

---

Insert Table 7 About Here

---

analyzed separately since it was anticipated that differences might exist between groups. Four of the seven correlations within variables were significant for the referred group: child deviant behavior ($r = .56$, $p < .01$),

BEST COPY AVAILABLE

child high intensity deviant behavior (r = .56, p < .01), child positive valence behavior (r = .44, p < .05), and parent commands (r = .41, p < .05). Only one correlation was significant for the nonreferred group: parent positive behavior in the home was inversely related to parent positive behavior in the clinic (r = -.51, p < .01).

Across situation correlations on child deviant behavior, child high intensity deviant behavior, and child positive valence behavior were all significantly greater for the referred sample than for the nonreferred sample (p < .05, two-tailed). The negative relationship across situations for parent positiveness was significantly greater for the nonreferred sample than for the referred sample (p < .05, two-tailed).

BEST COPY AVAILABLE

Discussion

The results indicated that all three types of variables--child behavior, parent behavior, and parent attitudes--differentiated referred from nonreferred children. Children referred for psychological treatment were behaviorally more deviant and less prosocial than a group of matched, nonreferred children. Their parents also differed from nonreferring parents: they were more negative to and more controlling of their child and described him as more deviant on an attitude questionnaire than nonreferring parents. Thus, the phenomenon of "child deviance" appears to exist on a behavioral as well as an attitudinal dimension. However, despite these statistical differences, assignment to one group or the other could not be made accurately on the basis of behavior alone because of the considerable overlap between groups. This overlap challenges the assumption that parent referral implies child deviant behavior and stresses the need to investigate other factors, in addition to child deviant behavior, which could be contributing to a child's being labeled deviant and referred for treatment.

Child Deviance as a Statistical Phenomenon

The significant difference between groups in terms of child behavior in the home is in keeping with results of similar comparison studies now emerging from child study centers across the country (Delfini, Bernal, & Rosen, 1974; Patterson, 1974). In contrast to earlier observational studies which did not find significant differences between groups

BEST COPY AVAILABLE

(e.g., Shaw, 1971), the current studies have used larger and better matched samples, particularly in terms of age, socioeconomic status, and father presence or absence in the home. In the present study, those child variables which significantly discriminated the two groups when observed in the home did not discriminate the two groups when observed in the clinic. This inconsistency in findings seems most probably explained by the increased variance within groups in the clinic in comparison to the home, particularly in terms of child deviant behavior; the difference between groups would have needed to be very pronounced to yield significance. It is not clear whether this increased variability was due to inherent differences in the two assessment conditions or to insufficient data sampling in the clinic. Regardless of the explanation, these results are congruent with previous studies in which observations in the clinic did not reveal behavioral differences between referred and nonreferred children (Bugental et al., 1972; Kogan & Wimberger, 1971).

In contrast, significant differences in terms of parent behavior were found in both the home and clinic. Parents who referred their children for treatment provided a significantly greater proportion of negative consequences and commands in both home and clinic than parents who perceived their child as normal. Moreover, parents of referred children were significantly more negative to both deviant and nondeviant child behavior. This greater negativeness to nondeviant child behavior is in keeping with previous research (Patterson, 1974; Shaw, 1971) which found that parents of highly deviant boys punished prosocial behaviors more than parents of nondeviant boys.

BEST COPY AVAILABLE

Thus, it appeared that children referred for treatment were being subjected to a greater proportion of negative feedback and parental control than their nonreferred counterparts, regardless of whether their behavior was deviant or nondeviant. One possible explanation for this phenomenon is suggested by the high correlations between child deviant behavior and parent negativism and child deviant behavior and parent commands. In both samples, significant correlations were found between child deviant behavior and parent negativeness (r = .58 in home, .60 in clinic for nonreferred; r = .53 in home, .44 in clinic for referred) and between child deviant behavior and parent commands (r = .35 in home, .57 in clinic for nonreferred; r = .74 in home, .66 in clinic for referred). These correlations replicate earlier work with nonreferring families (Johnson et al., 1973; Karpowitz, 1973). Although it was long assumed that parent negative consequences suppressed child deviant behavior, data from Patterson's laboratory (Patterson & Cobb, 1972; Patterson & Reid, 1970) suggest that negative consequences may have an accelerating rather than a punishing effect on child deviant behavior in those families where children have been referred for treatment. That is, given an aversive behavior from one family member, the probability of a deviant response from another family member is substantially increased over base-rate value. Although sequential analyses were not done on the present data, the positive relationship between child deviant behavior and parent negativeness and commands is consistent with the reciprocity theory which Patterson and colleagues have identified.

As predicted, parents who referred their children for treatment perceived their child as more deviant on an attitude questionnaire than

BEST COPY AVAILABLE

parents who labeled their child as normal. In contrast to the behavior variables, the overlap between groups on the attitude variables was minimal. Furthermore, the stepwise discriminant analysis correctly assigned 90% of referred children and 90% of nonreferred children to their respective groups on the basis of the parent attitude variable alone. Inclusion of the other four variables selected a priori increased the accuracy to 95% for the referred group but did not increase accuracy for the nonreferred group. The results of this analysis should be interpreted cautiously, however; the sample was very small and the obtained weights need to be cross-validated on an independent sample.

It is not possible to determine post hoc what variables were responsible for the more negative attitude on the part of the referring parents. Previous researchers using parent attitude questionnaires in comparing referred and nonreferred samples have speculated that parent attitude may not be related to child behavior (Novick, Rosenfeld, Bloch, & Dawson, 1966; Speer, 1971). The present study supports their speculation; that is, the correlations between the child behavior variables and parent attitude scores were negligible, both within and across groups. These low correlations might be accounted for by the considerable error variance which can be introduced by the use of different raters responding to the rating scale. A second explanation might be that parent negative attitudes are not related to child behavior observed by an outsider during a five-day period but rather related to a single, dramatic event or to very low base-rate behaviors which do not occur in the presence of an observer. Tantrums, destructiveness, and hitting might be examples of these low frequency behaviors.

BEST COPY AVAILABLE

At the same time, this lack of correlation between child behavior and parent attitude, coupled with the overlap between groups on the behavior variables, implies that factors in addition to child deviant behavior must be contributing to negative parent attitudes and hence child referral. Previous investigators have emphasized the relationship between parent distress, both personal and marital, and parent reported child deviance (e.g., Block, 1969; Jenkins, 1966; Rutter, 1966; 1971; Wolff & Acton, 1968). A recent study of referring families replicated these findings using home observations of parent and child behavior, parental ratings of marital satisfaction, and the MMPI (Johnson & Lobitz, 1974). The results indicated significant, negative correlations between marital satisfaction and the observed level of child deviance and between marital satisfaction and the level of observed maternal negativeness to the child. Analyses using the MMPI indicated that a large number of fathers' MMPI scales were related to child deviance, but this finding was not replicated for mothers. These findings converge to suggest that a perceived child problem, or actual child deviance for that matter, may be one of many difficulties in a family. Moreover, labeling a child deviant and referring him for treatment may result from misattribution of other family problems to the child. A second set of factors suggested by the literature which may be contributing to a greater negative attitude on the part of referring parents is lower parent tolerance levels and/or higher expectations for child behavior in some families (e.g., Schechtman, 1970; Shepherd et al., 1966; Speer, 1971). These factors may or may not be related to parent psychopathology or marital distress.

BEST COPY AVAILABLE

The final result to be considered is the significant correlations for child deviant behavior, high intensity deviant behavior, and positive behavior within the referred group across home and clinic observations. That these correlations were significantly greater than those for the nonreferred group suggests that the behavior of referred children may be more consistent across the two situations than that of nonreferred children. This difference corroborates results from an earlier study by Raush (1959) in which he found that "normal" boys varied their behavior across social settings more than did acting-out, institutionalized boys. However, these increased correlations for the referred group could also be a statistical artifact; because of increased variability in the referred group in comparison to the nonreferred group, it is more likely, on purely statistical grounds, that a higher correlation across situations would be found for the referred group.

Methodological Concerns

Discussion of the above results has assumed that the observations in the home and clinic and the parent responses to the questionnaire were truly representative of the situations sampled. However, this assumption is open to some question. In filling out the questionnaires, for example, parents could have been responding to certain demand characteristics inherent in the situation. Parents of referred children were involved because they wanted treatment; parents of control children had been accepted for the study because they had described their child as normal when interviewed over the telephone. Moreover, this sample of nonreferred families was not completely random since only families who had agreed to

BEST COPY AVAILABLE

be observed in the privacy of their homes could be included. Feedback had purposely not been promised in hopes of excluding those parents who might have participated for the sake of a professional opinion. Yet, one cannot be certain that this nonreferred sample was truly normative.

Of greater concern, however, is the recent evidence which suggests that parents can bias home observations by manipulating the target child to appear socially desirable or undesirable (Johnson & Lobitz, 1974; Lobitz, W. & Johnson, 1974). Despite instructions to be as natural as possible during observations, parents of referred children could have been manipulating their child's behavior in a socially undesirable way to guarantee treatment, whereas parents of nonreferred children might have been manipulating their child's behavior in a socially desirable direction to validate their report of "normality." It is impossible to determine post hoc whether any parent response set was operating during the observations. However, some indirect evidence is offered by findings from the study in which parents of deviant and nondeviant children were asked to make their child look socially desirable on certain days, normal on other days, and socially undesirable on the rest (Lobitz, W. & Johnson, 1974). The magnitude of the child deviant behavior score in the present study was most comparable to that score yielded under the "socially desirable" condition.
Moreover, scores found under the "socially undesirable" condition were higher than those found in the present study. Thus, if any response set was operating during the present study, it was probably a socially desirable one in both groups which seems to create only minimal distortion

BEST COPY AVAILABLE

in the data (Lobitz, W. & Johnson, 1974).

Child Deviance as a Clinical Phenomenon

Dichotomously speaking, it seems clinicians are working with two types of families, (a) those families in which the child's behavior is deviant and the parents label it appropriately, and (b) those families in which the child's behavior is not deviant in comparison to his peers but the parents label it so. These two kinds of families would seem to require different treatment approaches. The first should focus on reducing the target child's deviant behavior. One particularly effective means has been training in "parenting skills" (e.g., Eyberg & Johnson, 1974; Patterson, 1974). However, as suggested by the present study, teaching the parents to handle their child more effectively may not be sufficient; therapy focusing on other problems may be necessary. It is interesting to note that even in families where the child's behavior was clearly deviant, significant differences were not found between the target child and his siblings in terms of observed deviant behavior (Patterson et al., 1972). Thus, even in those clearly deviant cases, there seems to be more to the labeling of deviance than an objective assessment by parents of child deviance.

The second type of treatment approach should address itself more to those factors, both intrapersonal and interpersonal, which resulted in the child's being labeled deviant and referred for treatment when in fact his behavior is not deviant. In these latter cases, factors other than child behavior must be precipitating child referral, and therapy should deal with this misattribution. Much of what is traditionally labeled

BEST COPY AVAILABLE

family therapy is based on this assumption. As Haley (1963) has said, family therapy is practiced when "the emphasis is upon the total family unit with a child typically chosen to be the problem [p. 213]." However, treatment need not include all the family members; in some instances individual or marital therapy may be the most effective.

What appears to be required at this point are assessment procedures which establish the determinants of variance in the perception of child deviance. Before deciding on the preferred treatment strategy, clinicians need to differentiate families who are mislabeling and misattributing from those who are not. Thus, the initial evaluation should systematically explore as many variables as possible using a variety of assessment procedures. In particular, results of the present study stress the importance of going beyond parent interview and report to some type of parent-child-family observation. However, it should be noted that observational data can produce a false negative. In other words, a child could appear normal in the home and yet all other sources of information could point to child deviance. Such a possibility stresses the need to develop less obtrusive and more representative naturalistic observational methods which would provide a more comprehensive and generalizable picture of the child and his family.

BEST COPY AVAILABLE

References

Adkins, D. A. & Johnson, S. M. What behaviors may be called deviant for children? A comparison of two approaches to behavior classification. Paper presented at the meeting of the Western Psychological Association, Portland, April 1972.

Anderson, D. Application of a behavior modification technique to the control of the hyperactive child. Unpublished master's thesis, University of Oregon, 1964.

Beakel, N. G. & Mehrabian, A. Inconsistent communications and psychopathology. Journal of Abnormal Psychology, 1969, 74, 126-130.

Becker, W. C. The relationship of parental ratings of self and each other to the behavior of kindergarten children as rated by mothers, fathers, and teachers. Journal of Consulting Psychology, 1960, 24, 507-527.

Block, J. Parents of schizophrenic, neurotic, asthmatic, and congenitally ill children. Archives of General Psychiatry, 1969, 20, 659-674.

Brandon, S. An epidemiological study of maladjustment in childhood. M. D. thesis, University of Durham, 1960.

Brethower, D. M. & Reynolds, G. S. A facilitative effect of punishment on unpunished behavior. Journal of Experimental Analysis of Behavior, 1962, 5, 191-199.

Bugental, D. E., Love, L. R., & Kaswan, J. W. Videotaped family interaction: Differences reflecting presence and type of child

BEST COPY AVAILABLE

disturbance. Journal of Abnormal Psychology, 1972, 79, 285-290.

Bugental, D. E., Love, L. R., Kaswan, J. W., & April, C. Verbal-nonverbal conflict in parental messages to normal and disturbed children. Journal of Abnormal Psychology, 1971, 77, 6-10.

Conners, C. K. Symptom patterns in hyperkinetic, neurotic, and normal children. Child Development, 1970, 41, 667-682.

Delfini, L. F., Bernal, M. C., Rosen, & Rosen, P. M. Comparison of normal and deviant boys in their homes. In L. A. Hamerlynck, L. D. Handy, and E. J. Mash (Eds.), Parenting: Directions, change, and maintenance of healthy family behavior. Champaign, Illinois: Research Press, 1974, in press.

Eberhardy, F. The view from the couch. Journal of Child Psychology and Psychiatry, 1967, 8, 257-263.

Ebner, M. An investigation of the role of the social environment in the generalization and persistence of the effect of a behavior modification program. Unpublished doctoral dissertation, University of Oregon, 1967.

Eyberg, S. M. & Johnson, S. M. Multiple assessment of behavior modification with families: Effects of contingency contracting and order of treated problems. Journal of Consulting and Clinical Psychology, 1974, in press.

Haley, J. Marriage therapy. Archives of General Psychiatry, 1963, 8, 213-234.

Hendriks, A. Observed deviancy and age differences in deviant and normal boys. Unpublished manuscript, Oregon Research Institute, 1972.

BEST COPY AVAILABLE

Herbert, E. W. & Baer, D. M. Training parents as behavior modifiers: Self-recording of contingent attention. Journal of Applied Behavioral Analysis, 1972, 5, 139-149.

Jenkins, R. L. The varieties of children's behavior problems and family dynamics. American Journal of Psychiatry, 1968, 124, 1440-1445.

Johnson, S. M., Bolstad, O. D., & Lobitz, G. K. Generalization and contrast phenomena in behavior modification with children. In L. A. Hamerlynck, L. D. Handy, and E. J. Mash (Eds.), Parenting: Directions, change, and maintenance of healthy family behavior. Champaign, Illinois: Research Press, 1974, in press.

Johnson, S. M. & Lobitz, G. K. Parental manipulation of child behavior in home observations. Journal of Applied Behavioral Analysis, 1974, 7, 23-31.

Johnson, S. M. & Lobitz, G. K. The personal and marital adjustment of parents as related to observed child deviance and parenting behaviors. Journal of Abnormal Child Psychology, 1974, in press.

Johnson, S. M., Wahl, G., Martin, S., & Johansson, S. How deviant is the normal child? A behavioral analysis of the preschool child and his family. In R. D. Rubin, J. P. Brady, and J. D. Henderson (Eds.), Advances in behavior therapy. Volume 4. New York: Academic Press, 1973. Pp. 37-54.

Jones, R. R. Behavioral observation frequency data: Problems in scoring, analysis, and interpretation. Paper presented at the Fourth Banff International Conference on Behavior Modification, Banff, Alberta, Canada, March 1972.

BEST COPY AVAILABLE

Kanner, L. Do behavior sysmptoms always indicate psychopathology? Journal of Child Psychology and Psychiatry, 1960, 1, 15-25.

Karpowitz, D. Stimulus control in family interaction sequences as observed in the naturalistic setting of the home. Unpublished doctoral dissertation, University of Oregon, Eugene, 1972.

Kent, R. The human observer: An imperfect cumulative record. Paper presented at the Fourth Banff International Conference on Behavior Modification, Banff, Alberta, Canada, March 1972.

Kogan, K. I. & Wimberger, H. C. Behavior transactions between disturbed children and their mothers. Psychological Reports, 1971, 28, 395-404.

Lobitz, W. C. & Johnson, S. M. Parent response sets and the behavior of deviant and nondeviant children during naturalistic observations. Paper presented at the meeting of the Western Psychological Association, San Francisco, April 1974.

Miller, L. C., Hampe, E., Barrett, C. L., & Noble, H. Children's deviant behavior within the general population. Journal of Consulting and Clinical Psychology, 1971, 37, 16-22.

Novick, J., Rosenfel, E., Bloch, D., & Dawson, D. Ascertaining deviant behavior in children. Journal of Consulting Psychology, 1966, 30, 230-238.

Oleinick, M. S., Bahn, A. K., Eisenberg, L., & Lilienfeld, A. M. Early socialization experiences and intrafamilial environment. Archives of General Psychiatry, 1966, 15, 344-353.

Patterson, G. R. The aggressive child: Victim and architect of a coercive system. In L. A. Hamerlynck, L. D. Handy, and E. J. Mash

BEST COPY AVAILABLE

(Eds.), Parenting: Directions, change, and maintenance of healthy family behaviors. Champaign, Illinois: Research Press, 1974, in press.

Patterson, G. R. & Cobb, J. A. A dyadic analysis of "aggressive" behaviors. In J. P. Hill (Ed.), Minnesota Symposia on Child Psychology. Volume 5. Minneapolis: University of Minnesota Press, 1971.

Patterson, G. R., Cobb, J. A., & Ray, R. S. A social engineering technology for retraining of aggressive boys. In H. Adams & L. Unikel (Eds.), Issues and trends in behavior therapy. Springfield, Illinois: Charles C. Thomas, 1972.

Patterson G. R. & Fagot, B. I. Selective responsiveness to social reinforcers and deviant behavior in children. Psychological Record, 1967, 17, 369-378.

Patterson, G. R., Ray, R. S., Shaw, D. A., & Cobb, J. A. Manual for coding family interactions, sixth revision, 1969. Available from ASIS National Auxiliary Publications Service, in care of CCM Information Services, Inc., 909 Third Avenue, New York, New York 10022. Document #01234.

Patterson, G. R. & Reid, J. D. Reciprocity and coercion: Two facets of social systems. In C. Neuringer & J. L. Michael (Eds.), Behavior modification in clinical psychology. New York: Appleton-Century-Crofts, 1970.

Raush, H. L., Dittman, A. T., & Taylor, T. J. Person, setting, and change in social interaction. Human Relations, 1959, 12, 361-377.

Rutter, M. Children of sick parents. Maudsley Monograph, 1966, No. 16.

BEST COPY AVAILABLE

Rutter, M. Parent-child separation: Psychological effects on the children. Journal of Child Psychology and Psychiatry, 1971, 12, 233-260.

Rutter, M. & Graham, P. The reliability and validity of the psychiatric assessment of the child: I. Interview with the child. British Journal of Psychiatry, 1968, 114, 563-579.

Schechtman, A. Age patterns in children's psychiatric symptoms. Child Development, 1970, 41, 683-693.

Schulman, F. R., Shoemaker, D. J., & Moelis, I. Laboratory measurements of parental behavior. Journal of Consulting Psychology, 1962, 26, 109-114.

Shaw, D. A. Family maintenance schedules for deviant behavior. Unpublished doctoral dissertation, University of Oregon, 1971.

Shepherd, M., Oppenheim, A. N., & Mitchell, S. Childhood behavior disorders and the child guidance clinic: An epidemiological study. Journal of Child Psychology and Psychiatry, 1966, 7, 39-52.

Sines, J. O., Paulker, J. D., Sines, L. K., & Owen, D. R. Identification of clinically relevant dimensions of children's behavior. Journal of Consulting and Clinical Psychology, 1969, 33, 728-734.

Skindrud, K. An evaluation of observer bias in experimental-field studies of social interaction. Unpublished doctoral dissertation, University of Oregon, 1972.

Speer, D. C. Behavior problem checklist (Peterson-Quay): Baseline data from parents of child guidance and non-clinic children. Journal of Consulting and Clinical Psychology, 1971, 36, 221-228.

BEST COPY AVAILABLE

Wahler, R. G. Oppositional children: A quest for reinforcement control. Journal of Applied Behavioral Analysis, 1969, 2, 159-170.

Walker, H. M. & Buckley, N. K. Teacher attention to appropriate and inappropriate classroom behavior: An individual case study. Focus on Exceptional Children, 1973, 5, 5-11.

Wolff, S. Behavioral characteristics of primary school children referred to a psychiatric department. British Journal of Psychiatry, 1967, 113, 885-893.

Wolff, S. & Acton, W. P. Characteristics of parents of disturbed children. British Journal of Psychiatry, 1968, 114, 593-601.

BEST COPY AVAILABLE

Footnotes

[1]This research was supported by National Institute of Mental Health Grant MH 19633. The authors would like to express their appreciation to Sheila Eyberg and Orin Bolstad who assisted in the completion of various aspects of this work.

[2]Computing assistance was obtained from the Health Services Computing Facility, UCLA, sponsored by the NIH Special Research Resources Grant RR-3.

00039

BEST COPY AVAILABLE

Table 1

Observation Code Items Listed by Child Behavior and Parent Consequence Categories

Child Behavior Category			Parent Consequence Category		
Deviant	Nondeviant	Prosocial	Positive	Negative	Neutral
Demand Attention	Command	**Approval	Approval	Threatening Command	Command
*Violation of a Standing Command	Command Negative (Terminating)	**Attention Compliance	Attention	Command Negative (Terminating)	Command Prime
*Destructiveness	Command Prime	**Laugh	Compliance	Cry	Dependency
High Rate	Disapprove	**Nonverbal Interaction	Indulgence	Violation of Standing Command	Independent Activity
Humiliate	Receive	Physical Positive	Laugh	Disapprove	Leave
Noncompliance	Indulge	Touch	Nonverbal Interaction	Destructiveness	No Response
*Physical Negative	Leave	**Talk	Physical Positive	Humiliate	Self-stimulation
*Smart Talk	No Response	**Independent Activity	Receive	Ignore	High Rate
Tease			Talk	Noncompliance	
*Tantrum			Touch	Negativism	
Whine				Physical Negative	
Yell				Smart Talk	
*Threatening Command					
Ignore					
Negativism					

*High intensity deviant behaviors

**Positive valence behaviors

80040

BEST COPY AVAILABLE

Table 2

Results from Home Observations

Variable	Mean Proportion (Standard Deviation) Referred	Nonreferred	T-Value
Child deviant behavior	.071 (.054)	.041 (.029)	2.53*
High intensity deviant behavior	.016 (.016)	.005 (.006)	3.47***
Child positive valence behavior	.713 (.108)	.790 (.090)	2.84**
Parent negatives	.052 (.029)	.030 (.024)	3.34**
Parent positives	.552 (.177)	.586 (.185)	.68
Parent responses to child deviant behavior	.736 (.138)	.762 (.185)	.75
Parent commands	.074 (.041)	.052 (.031)	2.03*

*$p < .05$, $df = 52$

**$p < .01$, $df = 52$

***$p < .001$, $df = 52$

BEST COPY AVAILABLE

Table 3

Results from Clinic Situations

Variable	Mean Proportion (Standard Deviation) Referred	Nonreferred	T-Value
Child deviant behavior	.074 (.092)	.055 (.055)	.91
High intensity deviant behavior	.013 (.017)	.013 (.019)	.32
Child positive valence behavior	.665 (.121)	.711 (.06[illegible])	1.60
Parent negatives	.031 (.020)	.020 (.018)	2.38*
Parent positives	.599 (.079)	.609 (.090)	.42
Parent responses to child deviant behavior	.764 (.253)	.723 (.196)	.81
Parent commands	.284 (.067)	.241 (.039)	2.76**

*$p < .05$, $df = 50$

**$p < .01$, $df = 50$

Table 4

Results from Becker Semantic Differential

Variable	Mean Proportion (Standard Deviation)		T Value
	Referred	Nonreferred	
Factor I Relaxed Disposition	-11 (4.5)	-1 (6.1)	6.52***
Factor II Withdrawn-hostile	-12 (9.0)	-19 (7.8)	3.02**
Factor III Lack of Aggression	-11 (5.5)	5 (5.8)	9.25***
Factor IV Intellectual Efficiency	7 (7.4)	14 (8.3)	3.11**
Factor V Conduct Problems	11 (5.7)	-3 (6.3)	7.42***

**$p < .01$, $df = 46$

***$p < .001$, $df = 46$

Ratings in the direction of the factor label will result in a positive score on the factor.

BEST COPY AVAILABLE

Table 5

Summary of Overlap Between Referred and Nonreferred Groups

Variable	Referred Subjects Falling below Nonreferred Mean	Nonreferred Subjects Falling above Referred Mean
Child deviant behavior	30%	15%
High intensity deviant behavior	33%	7%
Child positive valence behavior	26%	7%
Parent negatives (Home)	52%	15%
Parent commands (Home)	37%	15%
Parent negatives (Clinic)	27%	23%
Parent commands (Clinic)	31%	12%
Becker Factor I	0%	8%
Becker Factor II	21%	17%
Becker Factor III	0%	0%
Becker Factor IV	8%	29%
Becker Factor V	4%	0%

Table 6

Results from Stepwise Discriminant Analysis

Variable	F to Force Initial Entry Level	Coefficient for Canonical Variable	Normalized*
Child deviant behavior (Home)	10.692	-1.857	-.320
Parent negatives (Home)	12.737	-1.442	-.200
Child deviant behavior (Clinic)	2.246	.712	.186
Parent negatives (Clinic)	9.856	-3.073	-.370
Parent Attitude Summary Score	81.207	.062	.853

*Multiplication by standard deviation

BEST COPY AVAILABLE

Table 7

Correlations within Variables across Home and Clinic Observations

Variable	Referred	Nonreferred
Child deviant behavior	.559**	.216
High intensity deviant behavior	.560**	.242
Child positive valence behavior	.439*	.208
Parent negatives	.202	-.125
Parent positives	-.096	-.510**
Parent responses to child deviant behavior	-.167	.046
Parent commands	.409*	.307

*$p < .05$

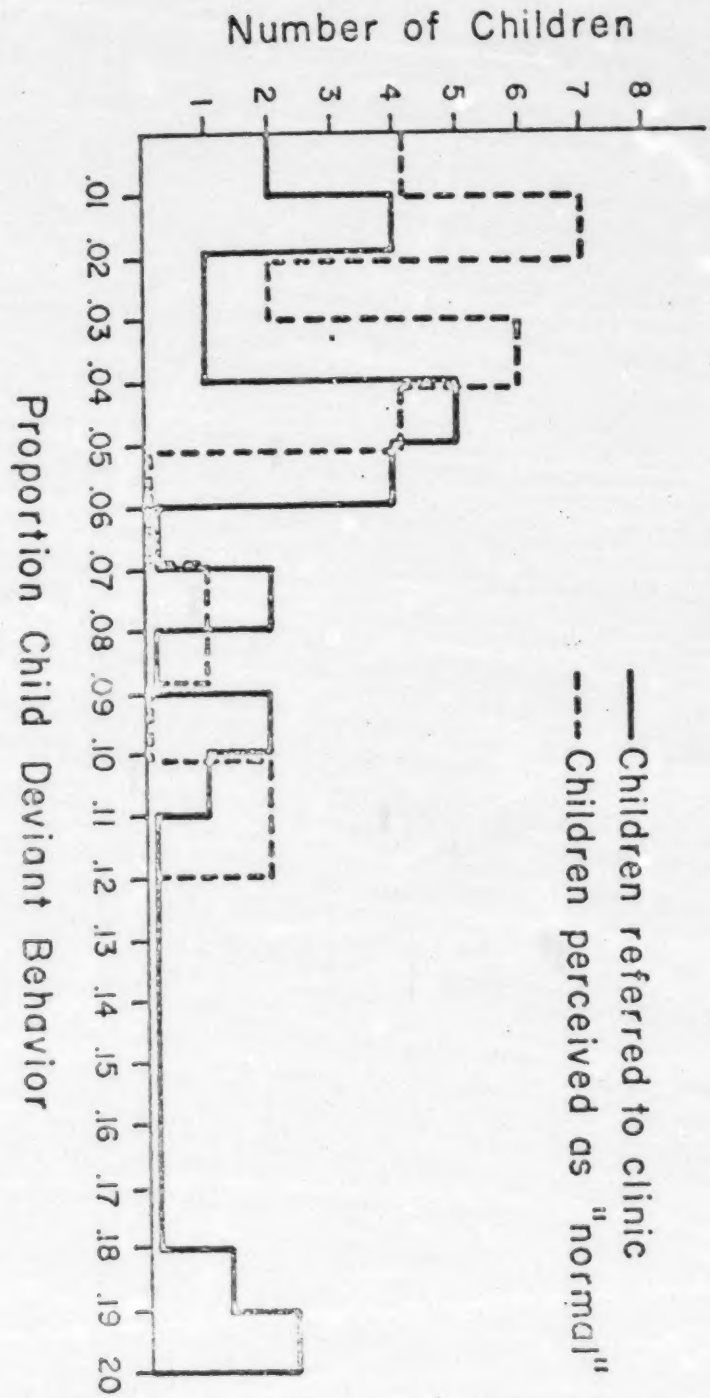
**$p < .01$

BEST COPY AVAILABLE

Figure 1

Subject Distribution for Child Deviant Behavior

As Measured in Home Observations


Number of Children
1 2 3 4 5 6 7 8
.01 .02 .03 .04 .05 .06 .07 .08 .09 .10 .11 .12 .13 .14 .15 .16 .17 .18 .19 .20
Proportion Child Deviant Behavior
Children referred to clinic
Children perceived as "normal"

BEST COPY AVAILABLE

Figure 2

Subject Distribution for Becker Summary Score